

WHAT IS CLAIMED IS:

1. An image reading system comprising:

a) plural light sources of mutually different light emission wavelengths;

5        b) reading means for reading an image illuminated by said plural light sources, thereby outputting image signals; and

      c) control means for effecting control, in causing said reading means to effect monochromatic image  
10      reading by turning on said plural light sources, in succession, in such a manner that the turn-on period of at least one of said plural light sources becomes shorter than in the color image reading.

15        2. An image reading system according to claim 1, wherein said light source is a light emitting element, and further comprising a light guiding member for guiding the light emitted from the light emitting element for irradiating the image.

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      3. An image reading system according to claim 2, wherein said light emitting element is an LED.

      4. An image reading system according to claim 1,  
25      wherein said plural light sources have light emission wavelengths of red, green and blue.

5. An image reading system according to claim 1, wherein said plural light sources have light emission wavelengths of cyan, magenta and yellow.

5           6. An image reading system according to claim 1, wherein said control means is adapted to effect control in such a manner that the light sources have respectively different turn-on periods.

10           7. A light source control device for controlling light sources to be used in an image reading device, comprising:

          a) plural light sources of mutually different light emission wavelengths; and

15           b) control means for effecting control, in case of monochromatic image reading by said image reading device, in such a manner that said plural light sources are turned on in succession, and that the turn-on period of at least one of said plural light sources  
20 becomes shorter than that in the color image reading.

          8. A light source control device according to claim 7, wherein said light source is a light emitting element and further comprising a light guiding member  
25 for guiding the light emitted from the light emitting element for irradiating the image.

9. A light source control device according to claim 8, wherein said light emitting element is an LED.

10. A light source control device according to claim 7, wherein said plural light sources have light emission wavelengths of red, green and blue.

11. A light source control device according to claim 7, wherein said plural light sources have light emission wavelengths of cyan, magenta and yellow.

12. A light source control device according to claim 7, wherein said control means is adapted to effect control in such a manner that the light sources have respectively different turn-on periods.

13. A memory medium storing a program for effecting control, in case of monochromatic image reading, in such a manner that plural light sources of mutually different light emission wavelengths are turned on in succession, and that the turn-on period of at least one of said plural light sources becomes shorter than that in the color image reading.

14. A memory medium according to claim 13, wherein said program further comprises a step of reading an image illuminated by the plural light

sources having mutually different light emission wavelengths and outputting image signals.

15        15. A memory medium according to claim 13,  
wherein said program further comprises a step of  
switching a color image reading mode and a  
monochromatic image reading mode.

10        16. A memory medium according to claim 13,  
wherein said program further comprises a step of  
effecting control in such a manner that the light  
sources have respectively different turn-on periods.

15        17. An image reading system comprising:  
a) plural light sources of mutually different  
light emission wavelengths;  
b) reading means for reading an image illuminated  
by said plural light sources, thereby outputting image  
signals; and  
20        c) control means for effecting control in such a  
manner as to cause said reading means to effect  
monochromatic image reading in a state in which at  
least one of said plural light sources is reduced in  
luminance in comparison with that in the color image  
25        reading and at least two light sources are turned on.

18. An image reading system according to claim

17, wherein said light source is a light emitting element and further comprising a light guiding member for guiding the light emitted from the light emitting element for irradiating the image.

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19. An image reading system according to claim 18, wherein said light emitting element is an LED.

20. An image reading system according to claim 10 17, wherein said plural light source have light emission wavelengths of red, green and blue.

21. An image reading system according to claim 15 17, wherein said plural light sources have light emission wavelengths of cyan, magenta and yellow.

22. An image reading system according to claim 20 17, wherein said control means is adapted to effect control in such a manner that the light sources have respectively different reduced luminances.

23. A light source control device for controlling light sources to be used in an image reading device, comprising:

- 25       a) plural light sources of mutually different light emission wavelengths; and
- b) control means for effecting control, in case of

monochromatic image reading with said plural light sources, in such a manner as to cause said image reading device to effect monochromatic image reading in a state in which at least one of said plural light sources is reduced in luminance in comparison with that in the color image reading and at least two light sources are turned on.

24. A light source control device according to claim 23, wherein said light source is a light emitting element and further comprising a light guiding member for guiding the light emitted from the light emitting element for irradiating the image.

25. A light source control device according to claim 24, wherein said light emitting element is an LED.

26. A light source control device according to claim 23, wherein said plural light sources have light emission wavelengths of red, green and blue.

27. A light source control device according to claim 23, wherein said plural light sources have light emission wavelengths of cyan, magenta and yellow.

28. A light source control device according to

claim 23, wherein said control means is adapted to effect control in such a manner that the light sources have respectively different reduced luminances.

5           29. A memory medium storing a program for effecting control, in case of monochromatic image reading with plural light sources of mutually different light emission wavelengths, in such a manner as to effect monochromatic image reading in a state in which  
10           the luminance of the light source is reduced in comparison with that in the color image reading and at least two light sources are turned on.

          30. A memory medium according to claim 29,  
15           wherein said program further comprises a step of reading an image illuminated by the plural light sources having mutually different light emission wavelengths and outputting image signals.

20           31. A memory medium according to claim 29, wherein said program further comprises a step of effecting control in such a manner that the light sources have respectively different reduced luminance.

25           32. An image reading system comprising:  
          a) plural light sources of mutually different light emission wavelengths;

b) reading means for reading an image illuminated by said plural light sources, thereby outputting image signals; and

5 c) control means for effecting control in such a manner as to cause said reading means to effect monochromatic image reading in a state in which the electric power supplied to at least one of said plural light sources is reduced in comparison with that in the color image reading and at least two light sources are  
10 turned on.

33. An image reading system according to claim 32, wherein said light source is a light emitting element and further comprising a light guiding member  
15 for guiding the light emitted from the light emitting element for irradiating the image.

34. An image reading system according to claim 33, wherein said light emitting element is an LED.

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35. An image reading system according to claim 32, wherein said plural light sources have light emission wavelengths of red, green and blue.

25 36. An image reading system according to claim 32, wherein said plural light sources have light emission wavelengths of cyan, magenta and yellow.



37. An image reading system according to claim 32, wherein said control means is adapted to effect control in such a manner that the light sources have respectively different reduced luminances.

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38. A light source control device for controlling light sources to be used in an image reading device, comprising:

- a) plural light sources of mutually different  
10 light emission wavelengths; and
- b) control means for effecting control, in case of monochromatic image reading by said image reading device, in such a manner as to reduce the electric power supplied to at least one of said plural light  
15 sources is reduced in comparison with that in the color image reading and at least two light sources are turned on.

39. A light source control device according to  
20 claim 38, wherein said light source is a light emitting element and further comprising a light guiding member for guiding the light emitted from the light emitting element for irradiating the image.

25 40. A light source control device according to claim 39, wherein said light emitting element is an LED.

41. A light source control device according to claim 38, wherein said plural light sources have light emission wavelengths of red, green and blue.

5           42. A light source control device according to claim 38, wherein said plural light sources have light emission wavelengths of cyan, magenta and yellow.

10           43. A light source control device according to claim 38, wherein said control means is adapted to effect control in such a manner that the light sources have respectively different reduced luminances.

15           44. A memory medium storing a program for effecting control, in case of monochromatic image reading with plural light sources of mutually different light emission wavelengths, in such a manner as to effect monochromatic image reading in a state in which the electric power supplied to at least one of said  
20           light sources is reduced in comparison with that in the color image reading and at least two light sources are turned on.

25           45. A memory medium according to claim 44, wherein said program further comprises a step of reading an image illuminated by the plural light sources having mutually different light emission

wavelengths and outputting image signals.

46. A memory medium according to claim 44,  
wherein said program further comprises a step of  
5 effecting control in such a manner that the light  
sources have respectively different reduced luminances.

47. An image reading system comprising:

a) plural light sources of mutually different  
10 light emission wavelengths;  
b) reading means for reading an image illuminated  
by said plural light sources in the unit of a line,  
thereby outputting image signals; and

c) control means for effecting control, in case of  
15 monochromatic image reading by said reading means, in  
such a manner as to turn on, in each line, a fewer  
number of light sources than in the color image  
reading, among said plural light sources, and to change  
the light sources to be turned on in every line,  
20 wherein said light source is a light emitting element  
and further comprising a light guiding member for  
guiding the light emitted from the light emitting  
element for irradiating the image.

25 48. An image reading system according to claim  
47, wherein said light emitting element is an LED.

49. An image reading system according to claim 47, wherein said plural light sources have light emission wavelengths of red, green and blue.

5        50. An image reading system according to claim 47, wherein said plural light sources have light emission wavelengths of cyan, magenta and yellow.

51. A light source control device for controlling  
10 light sources to be used in an image reading device, comprising:

a) plural light sources of mutually different light emission wavelengths; and

b) control means for effecting control, in case of  
15 monochromatic image reading by said image reading device, in such a manner as to turn on, in each line, a fewer number of light sources than in the color image reading, among said plural light sources, and to change the light sources to be turned on in every line,  
20 wherein said light source is a light emitting element and further comprising a light guiding member for guiding the light emitted from the light emitting element for irradiating the image.

25        52. A light source control device according to claim 51, wherein said light emitting element is an LED.

53. A light source control device according to claim 51, wherein said plural light sources have light emission wavelengths of red, green and blue.

5           54. A light source control device according to claim 51, wherein said plural light sources have light emission wavelengths of cyan, magenta and yellow.

10           55. A memory medium storing a program for effecting monochromatic image reading by turning on, in each line, a fewer number of light sources than in the color image reading with plural light sources, and changing the light sources to be turned on in every line.

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          56. A memory medium according to claim 55, wherein said program further comprises a step of reading an image illuminated by the plural light sources having mutually different light emission wavelengths in the unit of a line and outputting image signals.

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